Economic Analysis of Housing Policy in Hong Kong

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Problems and Solutions

• Homeless Problem
• Affordable Housing Problem
• Poverty Problem
Outline

• Real Estate Market and Economics: Macro + Micro
• Facts: Policy History + Data
• Economic Model
• Policy Analysis and Evaluation
Real Estate Market and Economics

Macroeconomics
Changes in property price

Channels that affect economic performance
- Wealth Effect
- Balance Sheet or Credit Channel
- Inflation
- Government Fiscal Position

Performance of Macroeconomy
Life Cycle Saving

Current homeowners

- Property price
- Down-payment

Future homebuyers

- Wealth
- Save more money
- Consumption

Wealth
Consumption
Factors Affecting Wealth Effect

Property price changes

- Well-developed and liquid secondary market
- Well-developed financial sector

Wealth Effect
Well-Developed Financial Market

• It allows owners to obtain extra finance when they are in need
• Mortgage for properties
• Second mortgage and Refinancing

Advertisement from Financial Institutions

- http://www.youtube.com/watch?v=J9m9yMhJjaM (Konew Financial Express)
- http://www.youtube.com/watch?v=TPr3PD1bgghA (UA Finance)
Values of New Loans Approved During the Month by Sectors from 2007 Q1 to 2012 Q4

Values of Mortgage in HK$ Million

Values for Refinancing (HK$ million)

Values for Secondary market (HK$ million)

Values for Primary market (HK$ million)

Source: Hong Kong Monetary Authority, Residential Mortgage Survey
Property Price and Banking Sector

• Mortgage loans and SMEs’ loans have assets as collaterals
• Banks can reduce risks of lending money as the net worth of collaterals increase (balance sheet improves)
• Potential borrowers can increase their borrowing ability by offering collaterals
• Improve information asymmetry
## Percentage of Secured Advances in Advances to Customers by Industry Sectors (2012)

<table>
<thead>
<tr>
<th>Bank*</th>
<th>% of Secured Advances in Industrial, Commercial and Financial(^1)</th>
<th>% of Secured Advances in Individuals Loans(^2)</th>
<th>% of Secured Advances in Total Loans for Use in Hong Kong</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Bank of East Asia</td>
<td>72.25</td>
<td>83.12</td>
<td>75.80</td>
</tr>
<tr>
<td>Hang Seng Bank</td>
<td>67.1</td>
<td>82.2</td>
<td>74.0</td>
</tr>
<tr>
<td>Bank of China (Hong Kong)</td>
<td>50.29</td>
<td>91.69</td>
<td>69.91</td>
</tr>
<tr>
<td>HSBC</td>
<td>52.16</td>
<td>83.00</td>
<td>66.59</td>
</tr>
</tbody>
</table>

Source: 2012 annual reports of The Bank of East Asia, Hang Seng Bank, Bank of China (Hong Kong) and HSBC

1 Including Property Development, Property investment, Financial concerns, Stockbrokers, Wholesale and retail trade, Manufacturing, Transport and transport equipment, Recreational activities, Information technology and others

2 Including loans for the purchase of flats in the Home Ownership Scheme, Private Sector Participation Scheme and Tenants Purchase Scheme, loans for the purchase of other residential properties, credit card advances and others

3 This includes loans for the purchase of flats in Home Ownership Scheme, Private Sector Participation Scheme and Tenants Purchase Scheme, loans for purchase of other residential properties.
Property Price and Investment

Property Price

Net worth of assets increases

Improves balance sheets of banks and firms

Encourages banks to increase credit to the business sector
Property Price and Inflation

Channel 1
- Fluctuations in property prices
- Changes in housing cost component of CPI
- Changes in inflation rate

Channel 2
- Fluctuations in property prices
- Changes in consumption and investment
- Changes in aggregate demand
- Prices of other goods may change

Channel 3
- Changes in CPI today
- Changes of inflationary expectations today
- Changes of wage and rental contracts
- Changes of future CPI
Property Price and Government Fiscal Position

• Land and other property-related income is an important income source of HK government

• Fluctuations of property price may have significant effect on its fiscal position
Proportion of Stamp Duties from Properties and Land Premium in HK Government total revenues

<table>
<thead>
<tr>
<th>Fiscal Year</th>
<th>Total Revenues (HK$)</th>
<th>Stamp Duties from Properties (HK$)</th>
<th>Land Premium (HK$)</th>
<th>Proportion of Stamp Duties from Properties</th>
<th>Proportion of Land Premium</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013-14*</td>
<td>435.1 billion</td>
<td>20.7 billion</td>
<td>69 billion</td>
<td>4.7%</td>
<td>15.9%</td>
</tr>
<tr>
<td>2012-13</td>
<td>390.3 billion</td>
<td>15 billion</td>
<td>60 billion</td>
<td>3.8%</td>
<td>15.4%</td>
</tr>
<tr>
<td>2011-12</td>
<td>375 billion</td>
<td>15.4 billion</td>
<td>62 billion</td>
<td>4.1%</td>
<td>16.5%</td>
</tr>
</tbody>
</table>

Source: The Budget (Briefing for Legislative Council): 2013-14 / 2012-13 / 2011-12
* By estimation
Real Estate Market and Economics

Microeconomics
Market Participants

Real Estate Market

- Owners, owner-users, speculators, renters
- Workers in construction sector
- Facilitators
- Developers
Market Cycles

- Time to Build
- Buildings are long-lasting and impossible to be relocated
- Implies inelastic supply in short run
- Changes of demand is faster than changes of supply
- Time lags of building would cause under-supply or over-supply in the market
Business Cycle and Real Estate Cycle

Business cycle

Expansion

Demand increases

Price increases

Time lag due to construction

Recession

Supply increases

Price decreases

Real estate cycle
Heterogeneous Product

• Each flat / housing estate is in a unique location
  – Locates at north / south, 8th / 18th /28th floor...
• Property markets are segmented and localized
• Subject to surrounding environmental externalities
  – Lohas Park (日出康城) locates at the region with a landfill^
Highly Regulated by Governments

Regulations

Supply
- Zoning or environmental laws
  - Town Planning Ordinance
- Building laws
  - The Building Ordinance
- Consumer protection
  - The Residential Properties (First-hand Sales) Ordinance

Demand
- Stamp Duties
  - Ad Valorem Stamp Duty, Special Stamp Duty, Buyer’s Stamp Duty
## Comparison to Perfect Market

<table>
<thead>
<tr>
<th></th>
<th>Perfect Market</th>
<th>Real Estate Market</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of buyers and sellers</td>
<td>Many participants</td>
<td>Fewer participants, seller controls during a seller’s market* while buyer controls during a buyer’s market*</td>
</tr>
<tr>
<td>Product knowledge and ease of exchange</td>
<td>Buyers and sellers know well about the product; exchanges take place with ease</td>
<td>Buyers and sellers will not know well about the product; the exchange is legalistic, complex and expensive</td>
</tr>
<tr>
<td>Standardized products</td>
<td>Products are homogeneous</td>
<td>Each flat is unique and heterogeneous</td>
</tr>
<tr>
<td>Prices</td>
<td>Buyers and sellers are price takers</td>
<td>The price of each flat is varied</td>
</tr>
</tbody>
</table>

Demand and Supply Curves

Price or rent

Short Run Supply

Long Run Supply

\( P_e \)

Demand

Quantity or space
Determinants of Demand

• Demographic factors
  size of population, sex ratio, age structure, birth rate, marriage rate, life expectancy, ...
Population Pyramid of Hong Kong in Population Census 2011

Some Figures About HK Population

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Number</td>
<td>42,316</td>
<td>61,341</td>
<td>76,423</td>
<td>81,705</td>
</tr>
</tbody>
</table>

*Single parents: This refers to persons who are never married, widowed, divorced or separated, and living with child(ren) aged under 18 in the same household

Source: HK Census and Statistics Department, Women and Men in HK Key Statistics 2012
Determinants of Demand

• Income

• When income increases, the demand for housing increases, vice versa.

• Income inequality and quality of housing
  – HK example: Subdivided units vs. private residential units
Determinants of Demand

• Financing
  – Availability of credit (Loan-to-value ratio)
  – Interest rate (Prime rate)

HK Examples:
  – When Hong Kong Monetary Authority reduced the loan-to-value ratio in February 2013^, the demand for housing decreased.
  – When prime rate increases, demand for housing decreases, vice versa.

Determinants of Demand

• Changes in preferences

HK example:

– More people prefer to live by their own. This will increase the demand for houses.

Source: HK Census and Statistics Department, Women and Men in HK Key Statistics 2012
Determinants of Supply

• Availability and costs of factors of production
• Factors of production
  – Capital, land, labour, raw materials...
• Technology of building
Determinants of Supply

- Government legislations or regulations
- Policy Risk
Determinants of Supply

- Inelastic supply in short run
  - Price is largely determined by demand
- New supplies follow this price, $R$ as initial price
- More elastic supply in long run
  - Value, $V$ as discounting cash flows of rents will be compared to construction costs $C$

Stock vs. Flow

- Rent
- Stock of housing
- Value
- Housing starts, $H_s$
Policy History
Early History of Public Housing

1950s
- Large Influx of refugees
- Poor hill side shelter

Turning point
- On 25 December 1953, a major fire destroyed the Shek Kip Mei squatter areas.

1950-60
- Emergence public shelters
- Provisional Resettlement units
Objectives of public housing policy

50s-60s
- Emergency Housing
- Basic Living environment
- PRH by HK housing Authority

70s and 80s
- Permanent Housing
- Quality Housing
- Ten years housing programme: New towns, HOS, Private Sector Participation Scheme (PSPS)
- Promotion of Home ownership

1997-2000
- Target of 85,000 flats per year (50,000 public flats)
- Asian Financial Crisis
- Increasing role of the private market
Some Policies of Stabilizing Property Market Announced by Mr Suen Ming Yeung in November 2002 (孫九招)

<table>
<thead>
<tr>
<th>Some important policies Include:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stop regular land auctions and suspend the Application List System until end 2003. New supply of land will be applied by real estate developers from the Application List.</td>
</tr>
<tr>
<td>Suspend the sale of Home Ownership Scheme (HOS) flats and construction of HOS flats from 2003</td>
</tr>
<tr>
<td>Terminate the Tenants Purchase Scheme</td>
</tr>
<tr>
<td>Watch the demand for housing by low income families and turnover of public housing households. Investigate if a plan for rent subsidies will be accepted by residents or not and hence set up a complete construction plan for public housing.</td>
</tr>
<tr>
<td>Coordinate the pace and timing of tendering the concerned railway-related property development.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Date</th>
<th>Ad Valorem Stamp Duty</th>
<th>Special Stamp Duty</th>
<th>Buyer’s Stamp Duty</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 April 2010</td>
<td>Increased from the old rates</td>
<td></td>
<td></td>
</tr>
<tr>
<td>20 November 2010 – 26 October 2012</td>
<td></td>
<td>Started to levy (Stage 1)</td>
<td></td>
</tr>
<tr>
<td>27 October 2012</td>
<td></td>
<td>Adjusted to Stage 2</td>
<td></td>
</tr>
<tr>
<td>23 February 2013</td>
<td>Announced for a further adjustment</td>
<td></td>
<td>Started to levy</td>
</tr>
</tbody>
</table>
2013 Policy Address: Housing
Policy Objectives

(i) assist grassroots families to secure public housing

(ii) assist the public to choose accommodation according to their affordability and encourage home ownerships;

(iii) provide subsidized home ownership flats on top of PRH
Data
Private Domestic Property Price Index by Class from 1990 to 2012 (1999 as base year)

Source: Property Market Statistics, Review Monthly Supplement, Rating And Valuation Department
Private Domestic Property Rental Index by Class from 1990 to 2012 (1999 as base year)

Source: Property Market Statistics, Review Monthly Supplement, Rating And Valuation Department
Private Domestic Property Rental Index by Class and CPI (A) from 2003 to 2012 (1999 as base year)

Source: HK Census and Statistics Department, Property Market Statistics, Review Monthly Supplement, Rating And Valuation Department
Private Domestic Property Stock by Class from 1985 to 2012

Type A (Less than 40 m²)
Type B (40 m² to 69.9 m²)
Type C (70 m² to 99.9 m²)

*The figures from 2003-2012 have been adjusted as the original figures of this period of time exclude village houses in the source.

Source: Property market statistics, Review Monthly supplement, Rating and Valuation Department
Index of Private Domestic Property Stock by Class from 2003 to 2012 (2003 as base year)

*The figures from 2003-2012 have been adjusted as the original figures of this period of time exclude village houses in the source.

Source: Property market statistics, Review Monthly supplement, Rating and Valuation Department
Cumulative Number of Home Ownership Scheme Flats from 1980 to 2002
(Use year of completion as standard)

Total Number of Completion of Home Ownership Scheme Flats from 1980 to 2002
(Use year of completion as standard)


Source: Hong Kong Housing Authority
Actual Public Rental Housing Production from 2002/03 to 2011/12

Source: Hong Kong Housing Authority
## Domestic Household by Type of Housing in 2001, 2006 and 2011

<table>
<thead>
<tr>
<th>Type of Housing</th>
<th>2001</th>
<th>2006</th>
<th>2011</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>%</td>
<td>Number</td>
</tr>
<tr>
<td>Public Rental Housing</td>
<td>627339</td>
<td>30.6</td>
<td>690788</td>
</tr>
<tr>
<td>Subsidized Home Ownership Housing</td>
<td>320122</td>
<td>15.6</td>
<td>362439</td>
</tr>
<tr>
<td>Private Permanent Housing</td>
<td>1071881</td>
<td>52.2</td>
<td>1149952</td>
</tr>
<tr>
<td>Others^</td>
<td>34070</td>
<td>1.6</td>
<td>23367</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>2053412</td>
<td>100</td>
<td>2226546</td>
</tr>
</tbody>
</table>

Source: HK Census and Statistics Department, Population Census 2011
Distribution of Domestic Households by Tenure of Accommodation (2011)

Source: HK Census and Statistics Department, Population Census 2011 Table E102 and E103

*The calculations of Private Permanent Housing (Owner-occupiers) and Private Permanent Housing (Renting) are based on an assumption and the data from HK Census and Statistics Department.*
Median Monthly Domestic Household Rent and Median Rent To Income Ratios By Type Of Quarters in 2001, 2006 and 2011

<table>
<thead>
<tr>
<th>Type of quarters / Year</th>
<th>Median Monthly Domestic Household Rent (HK$)</th>
<th>Median Household Income (HK$)</th>
<th>Median Rent to Income Ratio(%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public Rental Housing Units</td>
<td>1300</td>
<td>1390</td>
<td>1210</td>
</tr>
<tr>
<td>Private Permanent Housing</td>
<td>5300</td>
<td>5100</td>
<td>7500</td>
</tr>
</tbody>
</table>

Source: HK Census and Statistics Department, Population Census 2011
Economic Model
Objectives

Consider a hypothetical situation to study:

a) The market of flats
   i) For sale
   ii) For rent
in the public and private sectors.

b) Effects of increase in supply of land for flats development

Tool: Linear supply and demand model
A flat for accommodation and/or for investment

The value of a flat is made up of:

a) The value of housing services yielded
b) The rate of monetary return of the flat (i.e. rents) as an investment asset

The willingness to pay to buy and willingness to accept to sell depend on the perceived value of the flat.
Key Assumption

An individual user, who needs a flat, demands only **ONE** unit of flat.
Overview of Housing Market Analysis

Total 2000 demanders for private flats at zero price

Private Primary Market Residual Demand

Private Secondary Market Residual Demand

Private Rental Market Unmet Demand

Means Tests

Public HOS Market Residual Demand + Public PHR Market Residual Demand

Public Rental Market Unmet Demand

Among them, 1000 eligible applicants for HOS flats at zero price (600 eligible PRH applicants)
Private Primary Flats Market

Quantity demand at zero price = 2000

Demand:
Buyers are willing to pay a first hand flat at different prices

Supply:
Fixed quantity

Quantity Traded:
200 buyers of first hand flats
**Private Secondary Flats Market**

Demand:
Buyers are willing to pay a second hand flat at different prices.

Supply:
Suppliers are willing to accept to sell their flats at different prices.

Quantity demanded at zero price
= 2000 - 200 = 1800

Demand for private second hand flats

Supply of second hand private flats

Residual demand
200 buyers of second hand flats.
Public housing is an option ONLY for those who pass the means-tests.

**Quantity demand at zero price = 1000**

Demand:
Applicants are willing to pay for a HOS flat at different prices

Supply:
A fixed number of HOS flats is supplied

Characteristics in the HOS market: An effective price cap per flats in work. A rationing mechanism by waiting time in work.

Quantity traded: 75 buyers of HOS flats
PRH is an option ONLY for those who pass the means-tests.

**Quantity demand at zero price = 600**

Demand:
Applicants are willing to pay for a PRH flat at different prices

Supply:
A fixed number of PRH flats is supplied

Characteristics: PRH is heavily subsidized. A rationing mechanism by waiting time in work.

Quantity traded: 200 renters of PRH flats
Private Rental Flats Market

Demand:

a) Mix of potential renters of flats = people who cannot afford the down payment + people who can afford down payment but fail to buy private flats

b) The rents per year at which renters are willing to pay are different.

Supply:
Flat owners ask for different levels of rent to lease their flats.
Private High Quality Flats Rental Markets

Supply of high quality rental flats

Demand for high quality flats

Quantity of rental flats

Rent per year (in thousand dollars)

Quantity demanded at zero price = 2000 – 675 = 1325

Demand:
Renters are willing to rent a flat at different prices

Supply:
Leasers are willing to lease a flat at different prices

Quantity traded: 401 renters of high quality flats
Private Middle Quality Flats Rental Markets

Rent per year (in thousand dollars)

Supply of middle quality rental flats

180
100
0
350
924

Demand for middle quality flats

Quantity of rental flats

Unmet demand: some left unsatisfied, some search for low quality rental options

Quantity demanded at zero price = 1325 - 401 = 924

Demand:
Renters are willing to rent a flat at different prices

Supply:
Leasers are willing to lease a flat at different prices

Quantity traded: 350 renters of middle quality flats
Private Subdivided Units Rental Market

Supply of subdivided units

Demand of subdivided units

Quantity demanded at price zero = 924-350=574

The rise of the subdivided units in the flats in the private market is to house the residual demanders in other market:

a) who cannot find anything in both the normal private selling and rental market, and
b) who are not yet housed by the public market.

Quantity traded: 170 renters of subdivided units
Summary

• The private market will not fully cover the need of housing demand.

• There will be excess demand in the subsidized public flats market.

• Private rental market provides tiers of rental flats to meet the demand, including subdivided rental units.
Policy Analysis and Evaluation
Increasing Land Supply in Private Market
The Effects of Increasing Land Supply for Building Private Flats

- Private Primary Market
  - Supply increases
  - Price decreases
  - Quantity traded increases

- Private Secondary Market
  - Demand decreases
  - Price decreases
  - Quantity traded decreases

- Private Rental Market
  - Demand decreases
  - Rent falls
  - Quantity traded decreases
Private Primary Flats Market

Price per flat (in million dollars)

Supply of first hand flats from developers

Demand for first hand flats

Residual Demand

Quantity of flats

2000 potential buyers of first hand flats

Supply increases
Demand unchanged
Price decreases
Quantity traded decreases
400 buyers of first hand flats
Private Secondary Flats Market

Quantity demanded at zero price = 1600 = 2000 - 400
Supply unchanged
Demand decreases
Price decreases
Quantity traded decreases
180 buyers of second hand flats
Public housing is an option ONLY for those who pass the means-tests.

**Quantity demanded at zero price = 1000**

**Demand:**
Applicants are willing to pay for a HOS flat at different prices

**Supply:**
A fixed number of HOS flats is supplied

Characteristics in the HOS market: An effective price cap per flats in work. A rationing mechanism by waiting time in work.

75 buyers of HOS flats
PRH is an option ONLY for those who pass the means-tests.

Quantity demanded at zero price = 600

Demand:
Applicants are willingness to rent a PHR flat at different prices

Supply:
Fixed supply of PRH flats

Characteristics: PRH is heavily subsidized. A rationing mechanism by waiting time in work.

200 buyers of PRH flats
Private High Quality Rental Flats Markets

Rent per year (in thousand dollars)

Supply of rental flats of higher quality

Demand for private high quality flats

Quantity of rental flats

Rent per year (in thousand dollars)

280
244
150
0 370 401 1145 1325

Quantity demanded at zero price = 2000 – 855 = 1145

Demand decreases
Supply unchanged
Price decreases
Quantity traded decreases

370 renters of high quality flats
Rent per year (in thousand dollars)

Supply of rental private flats of middle quality

Demand for private middle quality flats

Demand decreases
Supply unchanged
Rent decreases
Quantity trade decreases

300 renters of middle quality flats
Private Subdivided Units Rental Market

Supply of subdivided units

Demand of subdivided units

Quantity demanded at zero price = 775 - 300 = 475

Demand Decreases
Supply Unchanged
Rent decreases
Quantity traded decreases

150 renters of subdivided units
Policy Evaluation

Will increase land supply for private flats improve the living conditions for the grass root households?

Suggested Answer:

• It depends on the room it creates in the rental market for renters to move upstream from the lowest tier market. Yet, the unmet demand in the lowest tier quality market still exists.

• The people who cannot move upstream may be due to low income and/or deposit constrained.
Increasing Land Supply in Public Market
The Effects of Land Increase for Building Public Flats

- **Public HOS Market**
  - Supply increases
  - Quantity traded increases

- **Public PRH Market**
  - Supply increases
  - Quantity traded increases

- **Private Rental Market**
  - Decrease the demand for subdivided units
  - Rent falls
  - Quantity traded decreases
HOS flats and Subdivided Units Rental Market

Supply for HOS flats

<table>
<thead>
<tr>
<th>Price per flat (in million dollars)</th>
<th>Quantity of flats</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>3</td>
<td>75</td>
</tr>
<tr>
<td>250</td>
<td>1000</td>
</tr>
</tbody>
</table>

Price per flat induces supply of rental private flats of middle quality

Rent per year (in thousand dollars)

<table>
<thead>
<tr>
<th>Rent per year</th>
<th>Quantity of rental flats</th>
</tr>
</thead>
<tbody>
<tr>
<td>350</td>
<td>0</td>
</tr>
<tr>
<td>924</td>
<td>100</td>
</tr>
</tbody>
</table>

Induces supply of rental private flats of middle quality

Residual Demand

Demand for private middle quality flats
PRH flats and Subdivided Units Rental Market

Supply of PRHs

Rent per month

Demand of PRHs

Quantity of PRHs

Rent per month

Supply of subdivided units

Demand of subdivided units

Quantity of subdivided units

(Freed up by Green Form applicants)
a) The rate of monetary return of the flat (i.e. rents) may be reduced.

b) The private market is affected, not immediately, but in a long run the value of first and second hand flats for sell will fall to approach an important theoretical equilibrium condition:

Fundamental value of private flats = Today annual rent + Present value of the future expected annual rents
Private Primary Flats Market

- Price per flat (in million dollars)
- Supply of first hand flats from developers
- Demand for first hand flats

Price per flat (in million dollars)
Supply of first hand flats from developers
Demand for first hand flats

Private Secondary Flats Market

- Price per flat (in million dollars)
- Supply of second hand private flats
- Demand for private second hand flats

Demand for private second hand flats
Quantity of flats
Effects of Land Supply Policy

Increase land supply policies in either the private and public sectors:

a) Lower price and rent of flats

b) May reduce quantity of flats rented

c) May reduce the number of homelessness, people living in caged homes and young people with housing needs.
Policy Evaluation

Will increase land for PRH improve the living conditions for the grass root households?

Suggestive answer: Yes, it can improve the applicant’s living condition by moving them in the newly developed PRH flats. By paying a subsidized rent, their quality of life will also be improved.

In addition, the living costs of the grass root households may be reduced as these households may pay lower rents for the lowest tier housing (i.e. the subdivided units).
Policy Evaluation

Will increase land for HOS improve the living conditions for the grass root households?

Suggestive answer: Yes, an increase in HOS can increase the number of the people who are currently living in PRH to move upstream in the accommodation ladder, and thereby free up PRH resources to accommodate the applicants in line, and thus improve the grass root household’s living condition.

Again, the living costs of the grass root households may be reduced as they may pay lower rents for the lowest tier housing (i.e. the subdivided units).
Policy Evaluation

Which one is a better policy if a policy objective is to raise the living conditions of the grass root households?

Suggestive answer: Increasing the land supply for HOS has an effect to create an upstream accommodation ladder, but increase the land supply for PRH does not.

Both policies will improve the living conditions of some grass root households by moving them into the PRH flats. However, the former policy is more dynamic and has the potential to improve the living conditions of those who are currently living in PRHs but wish to own a HOS flat, and thereby freeing up resources.